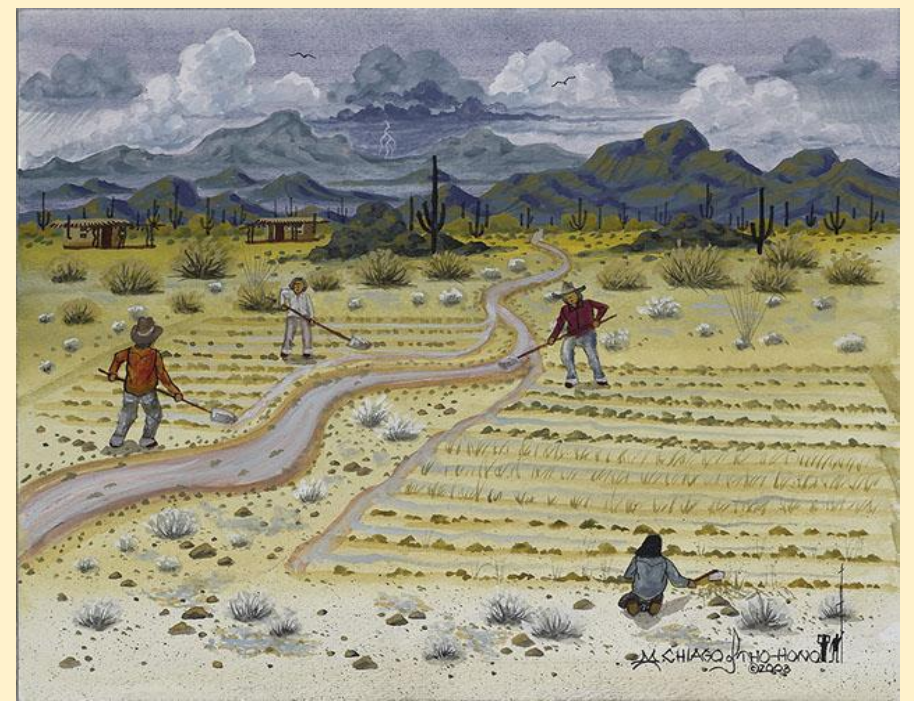
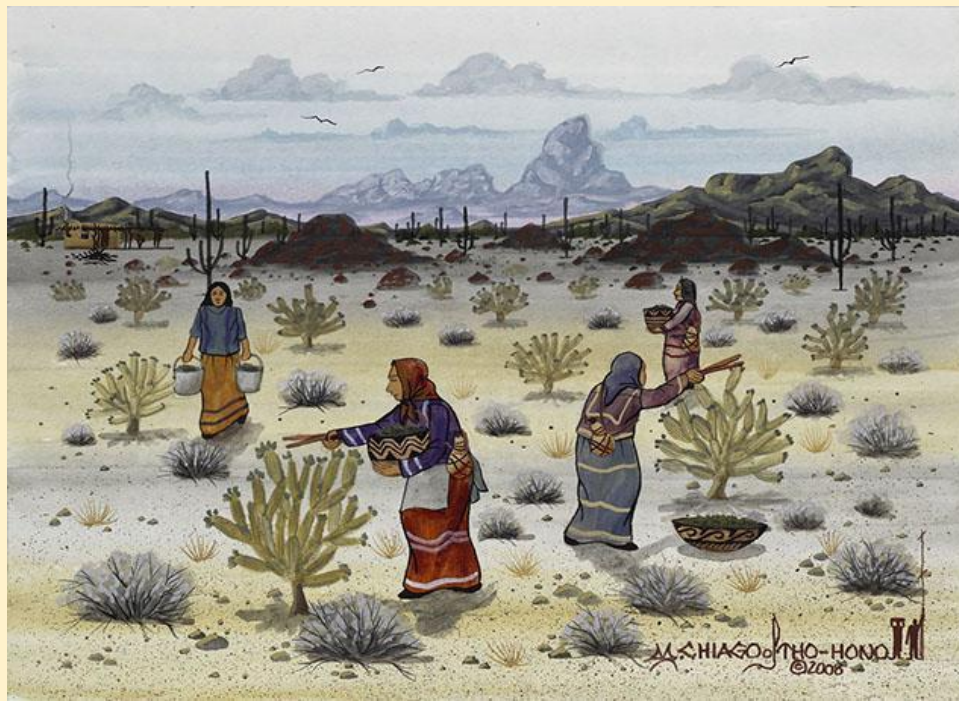
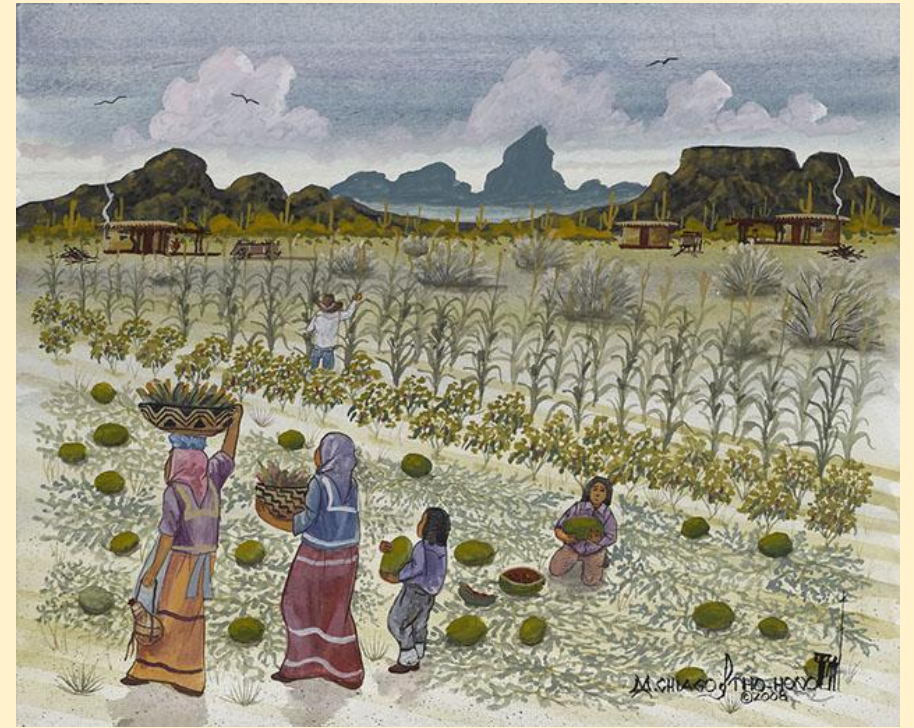
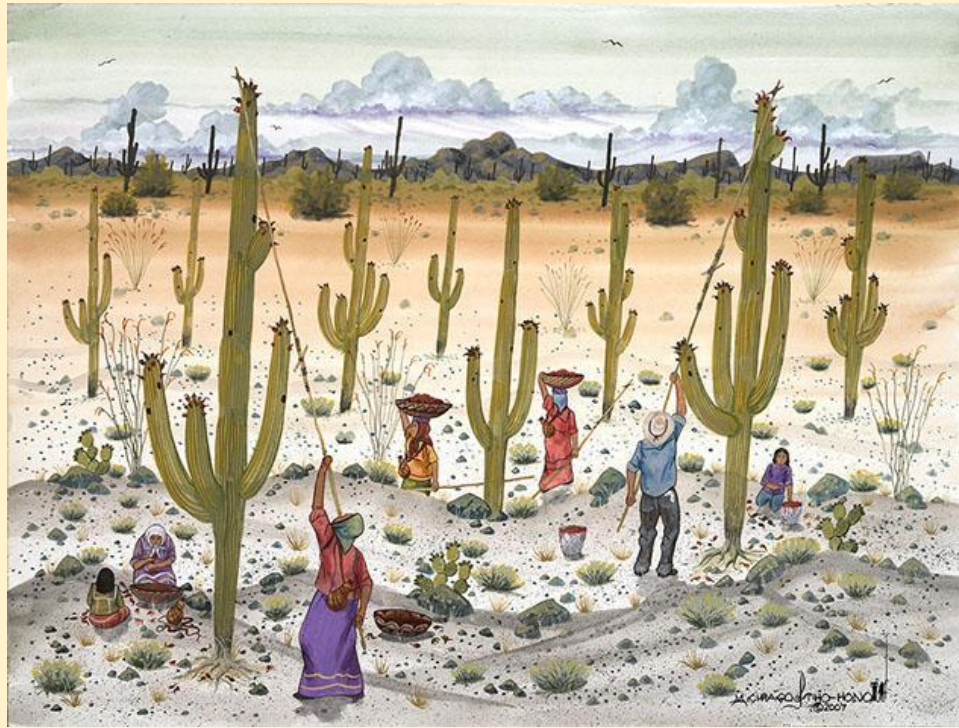
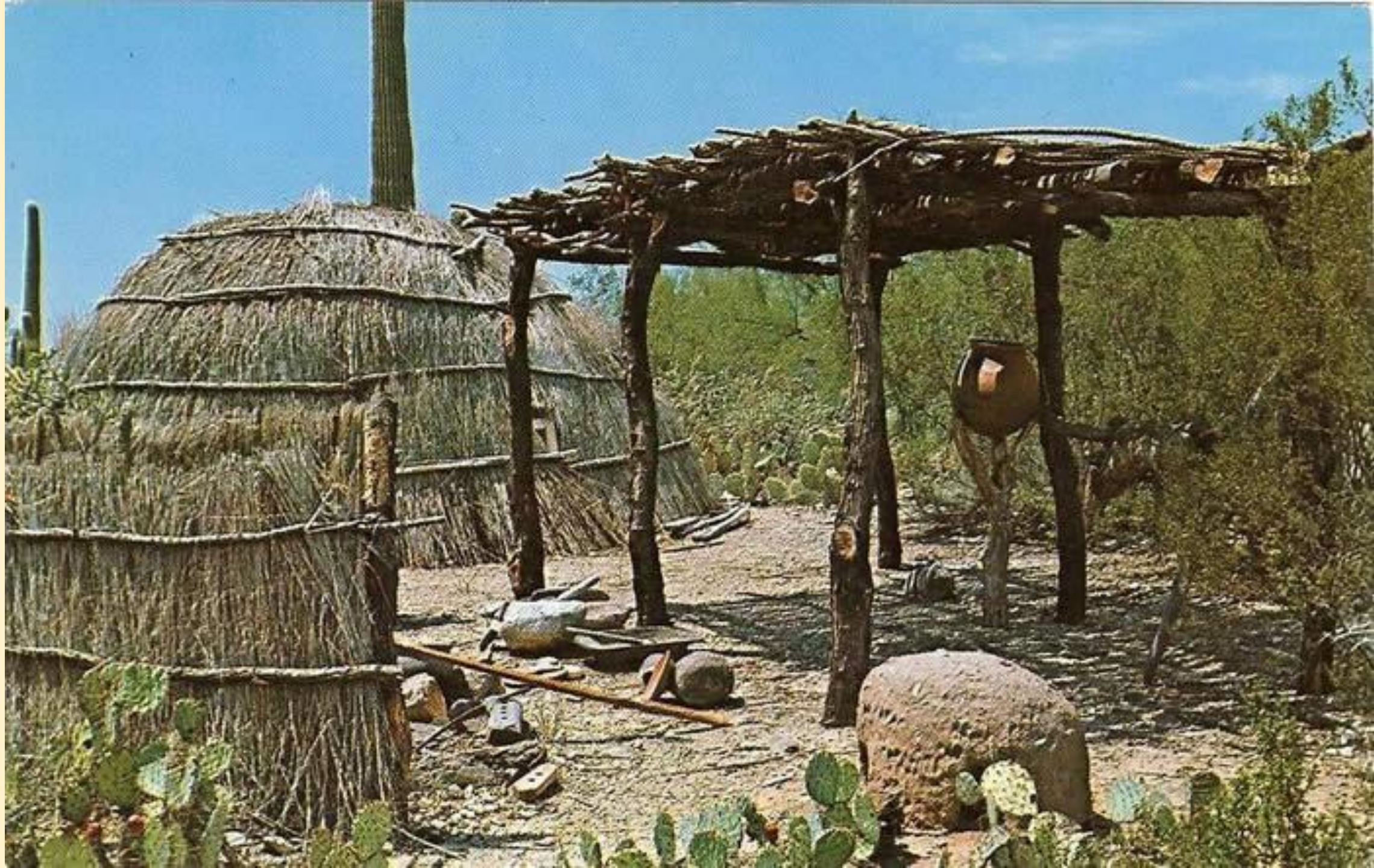


A photograph of a desert landscape. In the foreground and middle ground, there are several saguaro cacti of various sizes, some with arms. They are surrounded by low-lying green shrubs and grasses. The background shows a hillside with more cacti and vegetation under a clear blue sky. The text is overlaid on the top left of the image.

Traditional Knowledge, Plant Teachings and Cultural Uses of Plants Recognized by Indigenous Peoples – from the Sonoran Desert to the Haida Gwaii

Presented by Karena Schmidt, Ecologist
Keweenaw Bay Indian Community
Natural Resources Department





I'itoi -- Man in the Maze, Elder Brother

According to O'odham oral history, the labyrinth design depicts experiences and choices individuals make in the journey through life. In the middle of the "maze," a person finds their dreams and goals. When one reaches the center, the individual has a final opportunity to look back upon choices made and the path taken, before the Sun God greets us, blesses us and passes us into the next world.

As told by Alfretta Antone:

Elder Brother lived in the maze ... and the reason why he lived in the maze was because ... I think how I'm gonna say this ... magician or oh, medicine man that can disappear, and that can do things, heal people and things like that ... that was Elder Brother ... Se:he ... they called him ... he lived in there ... but he had a lot of enemies so he made that, and to live in there people would go in there but they couldn't find him ... they would turn around and go back.

But in real life ... when you look at the maze you start from the top and go into the maze ... your life, you go down and then you reach a place where you have to turn around ... maybe in your own life you fall, something happens in your home, you are sad, you pick yourself up and you go on through the maze ... you go on and on and on ... so many places in there you might ... maybe your child died ... or maybe somebody died, or you stop, you fall and you feel bad ... you get up, turn around and go again ... when you reach that middle of the maze ... that's when you see the Sun God and the Sun God blesses you and say you have made it ... that's where you die.

The maze is a symbol of life ... happiness, sadness ... and you reach your goal ... there's a dream there, and you reach that dream when you get to the middle of the maze ... that's how I was told, my grandparents told me that's how the maze is.





A seed is really something spiritual as much as it is something material. It contains a life spark that allows the regenerative process to happen. We need seeds because they are the physical manifestation of that concept that we call hope.

— Gary Paul Nabhan —

Eating is perhaps the most direct way we acknowledge or deny the sacredness of the earth.

We need to return to learning about the land by being on the land, or better, by being in the thick of it. That is the best way we can stay in touch with the fates of its creatures, its indigenous cultures, its earthbound wisdom. That is the best way we can be in touch with ourselves.

Tepary bean *Phaseolus acutifolius*

Tepary beans are a traditional food of the Pima, Tohono O'Odham, Hopi and Navajo Indians. It is said that the name tepary may derive from the Tohono O'odham phrase t'pawi or "It's a bean"



Traditional O'odham foods

- Bahidaj—Saguaro Cactus Fruit
- Bawi—Tepary Beans
- Ha:l—O'odham Squash
- Hu:ñ—O'odham 60-Day Corn
- I:ibhai—Prickly Pear Fruit
- Pinyon pine
- Agave
- jojoba

Traditional native foods and diabetes

- “Traditional O'odham foods--such as tepary beans, mesquite beans, cholla (cactus) buds and chia seeds--help regulate blood sugar and significantly reduce both the incidence and effects of diabetes.”



Cholla *Cylindropuntia acanthocarpa*

Ciolim are pit-roasted or boiled and taste like asparagus tips.

Cholla buds are incredibly healthy. Even as a side dish in a meal, cholla buds can improve how food affects the body. Two tablespoons of dried buckhorn cholla, for example, provides as much calcium as a glass of milk (14 grams of dry cholla buds supply 394 mg of calcium while one cup of whole milk supplies 276 mg of calcium). Yet, while a glass of milk may have 100-150 calories, the cholla buds only have 28 calories. And because cholla buds contain soluble pectins, they slow down digestion of sugars and other carbohydrates. The result is better control over blood-sugar level, eliminating the highs and lows.

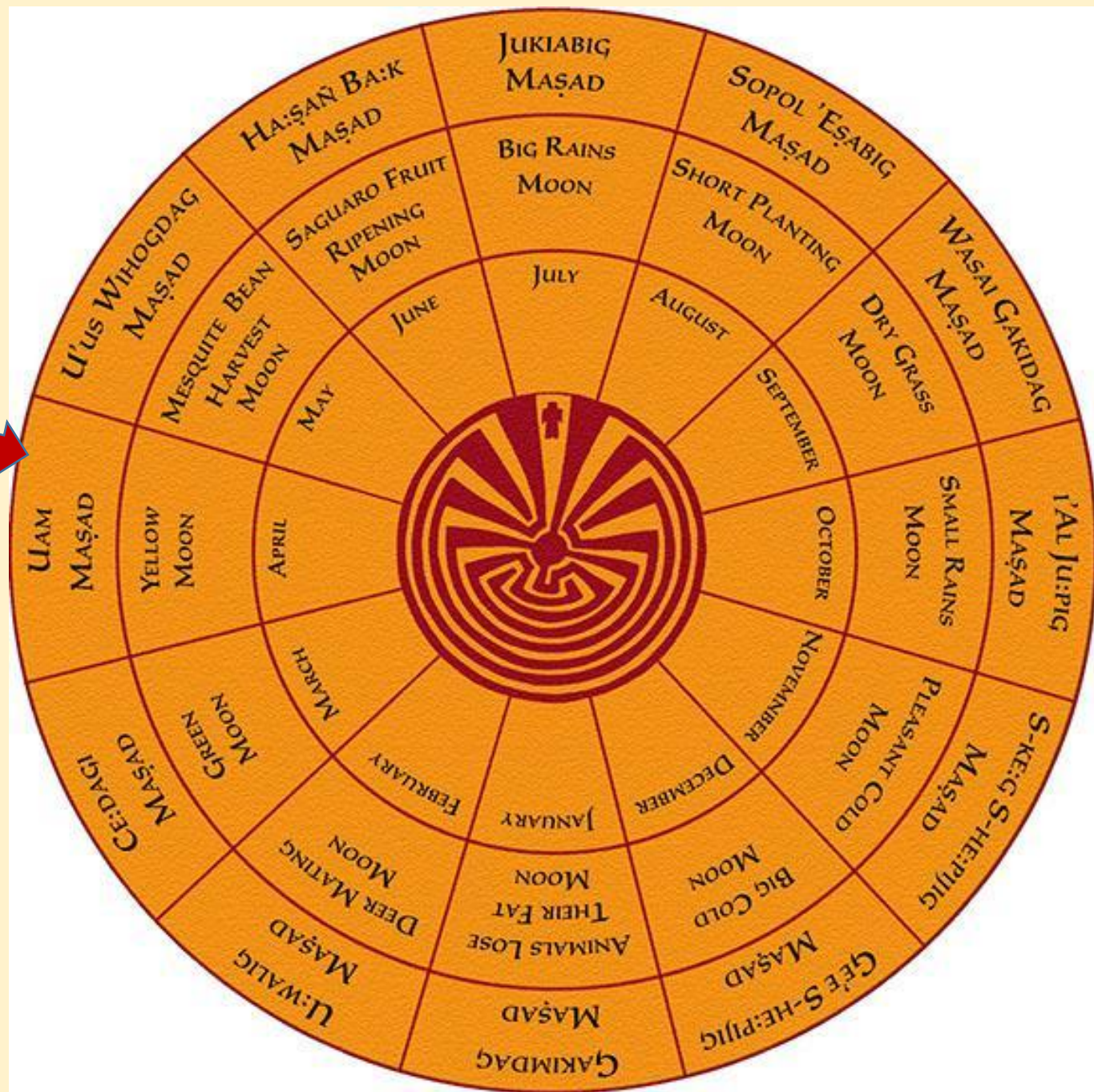


Tohono O'odham Traditional Calendar

The Tohono O'odham picked ciolim in their lunar calendar month of Su'am Mašad - "Yellow Month" - which falls around April. Traditionally, the buds are then dried so that they can be stored all year. Buds are then soaked and rehydrated before cooking.

Another version.....

Early spring was called *ko'oak macat* (the painful moon) by the Tohono O'odham because of scarce food supplies. During this season, they turned to cacti for food and pit-roasted thousands of calcium-rich cholla flower buds.



***Fouqueria splendens* Ocotillo**



Prickly Pear *Opuntia engelmannii*



Mesquite *Prosopis glandulosa*

The indigenous peoples of southwestern North America used parts of *Prosopis glandulosa* as a medicinal plant, food source, building and tools material, and fuel. The Cahuilla ate the blossoms and pods, which were ground into meal for cake. The thorns of the plant were used as tattoo needles, and the ashes for tattoos. The hard wood is prized for making tools and arrow points, and for the unique flavor it lends to foods cooked over it. The deep taproots, often larger than the trunks, are dug up for firewood.





This is not the boreal forest



Hopi dryland farming



Dance for rain in Hopi Village





Nancy Turner, ethnobotanist

When a community loses a culturally important wild habitat, critical information about its plants can be lost swiftly, too. Even if someone comes along a few decades later to restore the habitat, no one who remembers how a plant was once prepared or processed may be left.



totem poles
used to depict spiritual
reverence, family legends,
sacred beings and culturally
important animals, people, or
historical events

Haida gwaii





Wapato – *Sagittaria latifolia*



Over 300 plant species were utilized traditionally by Northwest Coast peoples as food, sources of materials, medicines, and for spiritual purposes.

Plant resources range along a continuum from foraging activities (with minimal impacts) to cultivation practices such as selective harvesting, tilling, weeding, pruning, and landscape burning to intensive gardening – leading eventually to complete domestication, as in the case of *Nicotiana quadrivalis*



tobacco – *Nicotiana quadrivalis*

Devil's club *Oplopanax horridus*



Camas *Camassia quamash*




Springbank Clover *Trifolium wormskiodii*



Thimbleberry *Rubus parviflorus*

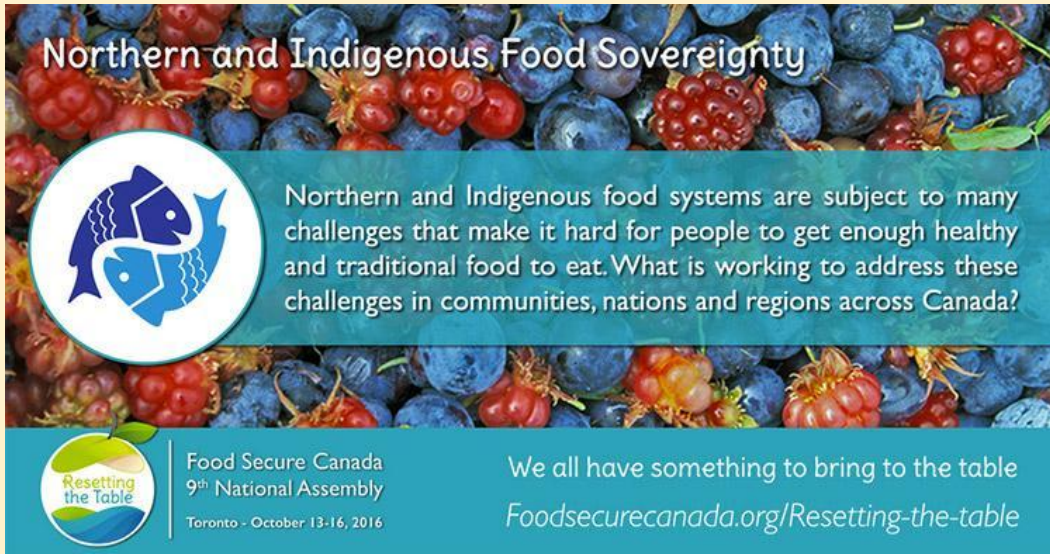




Keeping it living.....

It is our hope that we may foster a better understanding of the importance of plant resources, particularly plant foods....to provide some hint of the depth of knowledge and the amount of energy traditionally directed toward the maintenance and enhancement of these resources. For too long these practices have been belittled and overlooked. It is time for a considered and critical reevaluation.

-- *Nancy Turner*

A banner with a background of blueberries and raspberries. At the top, the text "Northern and Indigenous Food Sovereignty" is written in white. Below this, on the left, is a circular logo featuring two stylized fish. To the right of the logo, the text reads: "Northern and Indigenous food systems are subject to many challenges that make it hard for people to get enough healthy and traditional food to eat. What is working to address these challenges in communities, nations and regions across Canada?". At the bottom left is the "Resetting the Table" logo. To its right, the text says: "Food Secure Canada 9th National Assembly Toronto - October 13-16, 2016". On the far right, the text reads: "We all have something to bring to the table" and "Foodsecurecanada.org/Resetting-the-table".

Northern and Indigenous Food Sovereignty

Northern and Indigenous food systems are subject to many challenges that make it hard for people to get enough healthy and traditional food to eat. What is working to address these challenges in communities, nations and regions across Canada?

Food Secure Canada
9th National Assembly
Toronto - October 13-16, 2016

We all have something to bring to the table
Foodsecurecanada.org/Resetting-the-table

ANCESTRAL EATING

RE-INDIGENIZING FOOD PREPARATION AND CONSUMPTION TO RESTORE THE SPIRITUAL, MENTAL, EMOTIONAL AND PHYSICAL WELLNESS OF THE PEOPLE.

HEALTHY FOOD HAS ALWAYS BEEN CENTRAL TO INDIGENOUS CULTURES.

There was a time when a lot of foods weren't being grown and people were not participating in cultural activities. The ties were weakened and broken. The people suffered from cultural detachment because everything is tied to land use, ceremonies and food. There is realization that moving back to these activities will strengthen the culture. There is resurgence of cultural and agricultural processes. ~ Mike Rios, San Javier Cooperative and member of the Indian Land Working Group

TRIBAL FOOD SOVEREIGNTY

THE RIGHT FOR INDIGENOUS NATIONS TO DEFINE THEIR OWN DIETS AND SHAPE FOOD SYSTEMS THAT ARE CONGRUENT WITH THEIR SPIRITUAL AND CULTURAL VALUES.



Upcoming conference! October 2021

The Build and Broaden Indigenous Agriculture and Food Sovereignty Symposium.

The Intertribal Agriculture Council – Great Lakes Region and the IAC American Indian Foods (AIF) Program are pleased to announce they are the recipients of a National Science Foundation (NSF) award

